

**REMARKS**

Claims 1-13 are currently pending in the application. By this amendment, claim 11 is amended. The above amendment does not add new matter to the application and is fully supported by the specification. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

***35 U.S.C. §112 Rejection***

Claim 11 was rejected under 35 U.S.C. §112, 2<sup>nd</sup> paragraph. This rejection is believed to be moot. Claim 11 has been amended consistent with the Examiner's comments. Support for amended claim 11 can be found on page 13, lines 10-20. Accordingly, Applicant respectfully requests that the above-noted rejection of claim 11 be withdrawn.

***35 U.S.C. §102 Rejections***

Claims 1-3, 10, 11, and 13 were rejected under 35 U.S.C. §102(b) for being anticipated by U.S. Patent No. 5,632,535 issued to Luckevich *et al.* Claims 1,4,5,10,11, and 13 were rejected under 35 U.S.C. §102(b) for being anticipated by U.S. Patent No. 5,938,299 issued to Hara *et al.* These rejections are respectfully traversed.

***Argument over Luckevich et al.***

As a preliminary matter, Applicant is herein presenting a Rule 1.132 Declaration pointing out the deficiencies of Luckevich. Furthermore, Applicant also respectfully

traverses this rejection for the reasons already made of record, and for the following reasons.

Luckevich discloses a braking system which uses a dynamic rear proportioning (DRP) system in combination with an anti-lock braking system (ABS) (see col. 1, lines 25-27). Luckevich, however, does not disclose or suggest that the disclosed control unit finishes the brake force distribution control as a vehicle stops and after a forward force applied to the vehicle is released and prior to a stop of the vehicle.

The Examiner has identified col. 5, lines 65-67 of Luckevich as disclosing that the distribution control is terminated immediately after the vehicle speed has reached a low speed limit. Applicant submits, however, that this assertion is beside the point. Applicant is not merely claiming that the control is terminated immediately after the vehicle speed has reached a low speed limit and submits that the Examiner has improperly characterize the claimed invention. As the Examiner will note from a more careful review of claims 1 and 13, these claims instead recite that the control unit finishes the brake force distribution control as a vehicle stops and after a forward force applied to the vehicle is released and prior to a stop of the vehicle. This language is not the same as terminating the control immediately after the vehicle speed has reached a low speed limit. In fact, there is no language in Luckevich which discloses or suggest this feature of claims 1 and 13, and the Examiner has failed to identified any.

Applicant submits that the presently claimed invention is different from the system disclosed by Luckevich. As discussed in the attached declaration by an expert, Luckevich discloses a system which uses a delay of one second prior to the termination

of the brake distribution control. This delay of one second is implemented so that the vehicle can "come to a complete stop and for the driver to relax pressure on the brake pedal" (see col. 6 lines 4-6). Thus, the flow change resulting from the termination of the brake distribution control is not performed until *after* the delay is complete (col. 6, lines 11-12). Accordingly, Applicant submits that the brake distribution control of Luckevich is terminated only *after* the vehicle has come to a complete stop. In the present invention, the brake distribution control is finished *prior* to a complete stop of the vehicle, e.g., to match the swing back motion of the vehicle from the stopping motion and the swing back motion of the pedal resulting from the brake distribution control being terminated. Thus, the present invention is directed towards a time frame that is explicitly contrary to Luckevich.

Furthermore, as discussed in the declaration of the expert, the driver of Luckevich is expected to relax pressure on the brake pedal of his own volition to avoid the sudden drop of the brake pedal, (see col. 6, lines 4-6). However, in the present invention, the driver does not have to relax pressure on the brake pedal to avoid the sudden drop of the brake pedal, as the present invention is directed to alleviating this problem. By engineering the system to adjust the timing of the brake control distribution termination process, the sudden drop of the brake pedal can be disguised as part of the swing back motion of the vehicle as the vehicle comes to a complete stop. Thus, unlike the driver of Luckevich, the driver using the presently claimed invention is not expected to relax pressure on the brake pedal of his own volition.

Accordingly, the rejection of claims 1-3, 10, 11 and 13 as anticipated by Luckevich is improper and should be withdrawn.

***Argument over Hara et al.***

The Examiner has pointed to the types of conditions described in col. 7, lines 42-56 of Hara as being anticipatory to the claimed invention. Applicant respectfully disagrees with the Examiner's assertions. The types of conditions described in Hara simply do not disclose or suggest the combination of features recited in at least claims 1 and 13. In particular, Hara does not disclose or suggest that the disclosed control unit finishes the brake force distribution control as a vehicle stops and after a forward force applied to the vehicle is released and prior to a stop of the vehicle.

The Examiner has identified col. 7, lines 50-53 of Hara as disclosing that the brake force distribution control is terminated when the vehicle speed or wheel speed falls below a low speed. Applicant submits, however, that this assertion is beside the point. Applicant is not merely claiming that the control is terminated when the vehicle speed or wheel speed falls below a low speed and submits that the Examiner has improperly characterize the claimed invention. Again, a more careful review of claims 1 and 13 demonstrates that claims 1 and 13 instead recite that control unit finishes the brake force distribution control as a vehicle stops and after a forward force applied to the vehicle is released and prior to a stop of the vehicle. This language is not the same as terminating the control when the vehicle speed or wheel speed falls below a low

speed. In fact, there is no language in Hara which discloses or suggest this feature of claims 1 and 13, and the Examiner has failed to identified any.

Again, as discussed in the Declaration of the expert, regarding condition (1) of Hara, the driver using the presently claimed invention is *not* expected to relax pressure on the brake pedal, and thus this condition does not apply. Regarding condition (2) and (3) of Hara, the Examiner has failed to explain the relevancy of these conditions and thus Applicant presumes that the Examiner has agreed to their irrelevancy to the present invention.

Regarding conditions (4) and (5) of Hara, these merely relate to situations in which the forward motion of the vehicle is coming to a stop. However, Hara does not discuss the release of the frontward force applied to the vehicle that is recited in claim 1 or claim 13. More specifically, Hara does not discuss the swing back motion of the vehicle that the present invention is directed towards. In the braking procedure of the present invention, just prior to the stopping of a vehicle, there is a swing back motion as the vehicle jerks to a stop. This is the timing that is described by the release of the frontward force applied to the vehicle. There is no discussion in Hara with regard to employing such a release of the frontward force applied to the vehicle, and thus Applicant submits that Hara does not teach or suggest all of the limitations of the present invention.

Accordingly, the rejection of claims 1, 4, 5, 10, 11 and 13 as anticipated by Hara is improper and should be withdrawn.

**Dependent Claims**

As to the dependent claims, Applicant submits that claims 2-5, 10, and 11 depend from distinguishable claim 1. Thus, these claims are also in condition for allowance. These features of these claims are also not shown in the prior art references. For example, neither Luckevich or Hara shows the control finishing prior to the stop of the vehicle.

Accordingly, Applicant respectfully requests that the rejection over claims 1-5, 10, 11, and 13 be withdrawn.

***35 U.S.C. §103 Rejections***

Claims 6-8 were rejected under 35 U.S.C. §103(a) for being unpatentable over Luckevich alone. Claim 9 was rejected under 35 U.S.C. §103(a) for being unpatentable over Hara alone. Claim 12 was rejected under 35 U.S.C. §103(a) for being unpatentable over Luckevich or Hara in view of U.S. Patent No. 6,030,056 to Sawada et al. These rejections are respectfully traversed.

Applicant submits that claims 6-9 and 12 are dependent claims, originating from distinguishable base claim 1. Applicant thus submits that these claims are also in condition for allowance.

Applicant further submits that these claims are also non-obvious on their own merits. Regarding the rejection of claims 6 and 7, Applicant refers the Examiner to the aforementioned discussion of Luckevich in which it was pointed out that the disclosed brake control termination is carried out *after* the delay of one second.

Regarding the rejection of claims 8 and 9, the predetermined wheel speed of 2km/h was chosen as one example of the time that still allows for the brake fluid to even out after the valves open but before the complete stopping of the vehicle. That is, the predetermined wheel speed of 2km/h was chosen as one example for the cutoff speed for the initiation of the brake force distribution control termination process, wherein the drop of the pedal can be masked with the swing back motion of the vehicle as the brake force distribution control is finished. Applicant submits that neither Luckevich nor Hara render the present invention obvious with regard to claims 8 and 9 since they provide no motivation for selecting 2km/h as a predetermined speed for initiating the brake force distribution control termination process.

With regards to the rejection of claim 12, Applicant acknowledges that Sawada teaches pitch control. However, the Examiner has failed to explain how Sawada cures the above-noted deficiencies of each of Luckevich or Hara. Applicant notes that in the present invention, the pitching motion is combined with the termination of the brake control distribution process so that the drop of the brake pedal is not as noticeable to the driver and in a particular recited manner. Sawada, like Luckevich or Hara, does not disclose or suggest that control unit finishes the brake force distribution control as a vehicle stops and after a forward force applied to the vehicle is released and prior to a stop of the vehicle. Nor has the Examiner demonstrated otherwise. Thus, Applicant submits that the combination of Sawada and Luckevich or Hara would not render obvious the present invention.

Accordingly, Applicant respectfully requests that the rejection over claims 6-9 and 12 be withdrawn.

### CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed. Applicant hereby makes a written conditional petition for extension of time, if required. Please charge any deficiencies in fees and credit any overpayment of fees to Deposit Account No. 19-0089.

Respectfully submitted,  
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